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6.0   NMCI RELEASE DEPLOYMENT PROCESS (NRDP)

Integration of a release within NMCI requires application developers to complete documentation, reviews, and tests. The NRDP is a formal process that defines the processes that a release must follow for packaging, testing, certification, and deployment in NMCI. This section describes the major process steps and basic considerations.

> **NOTE:** For updated instructions on specific areas, be sure to check the ISF Tools Database: https://usplswebh0ab.plano.webhost.eds.net/isftool/Login.jsp.

This section focuses on the introduction of new (emerging) releases into NMCI; the processing of quarantine/kiosk application solutions; and the deployment of patches, modifications, fixes, updates, and upgrades to existing applications operating in NMCI.

The NRDP, as depicted in Figure 6-1, is part of the overall management strategy of the NRMP. The process ensures that all releases are compliant with established standards, directs actions to be taken when compliance is not achieved, and covers steps involved in deployment of the release. Figure 6-2 is the legend for process flow diagrams used in this section.
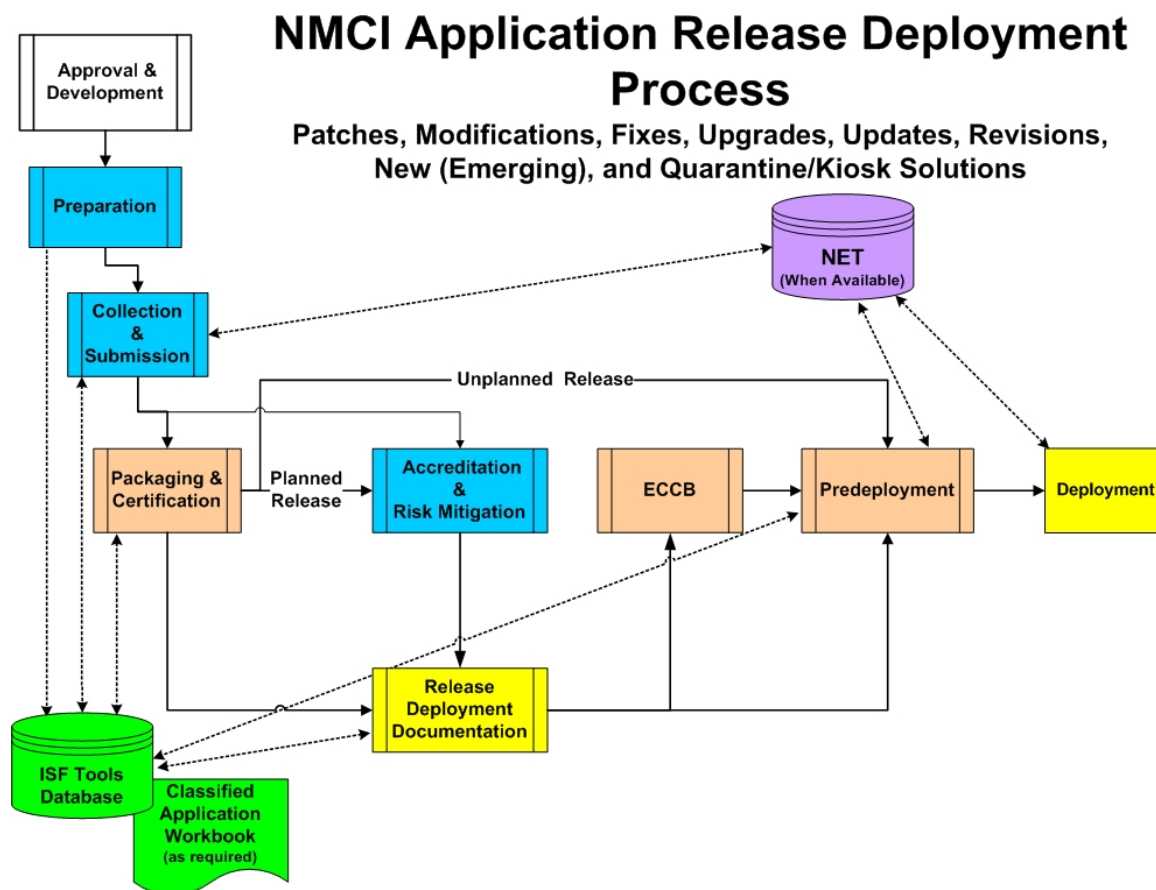
Figure 6-1 NRDP
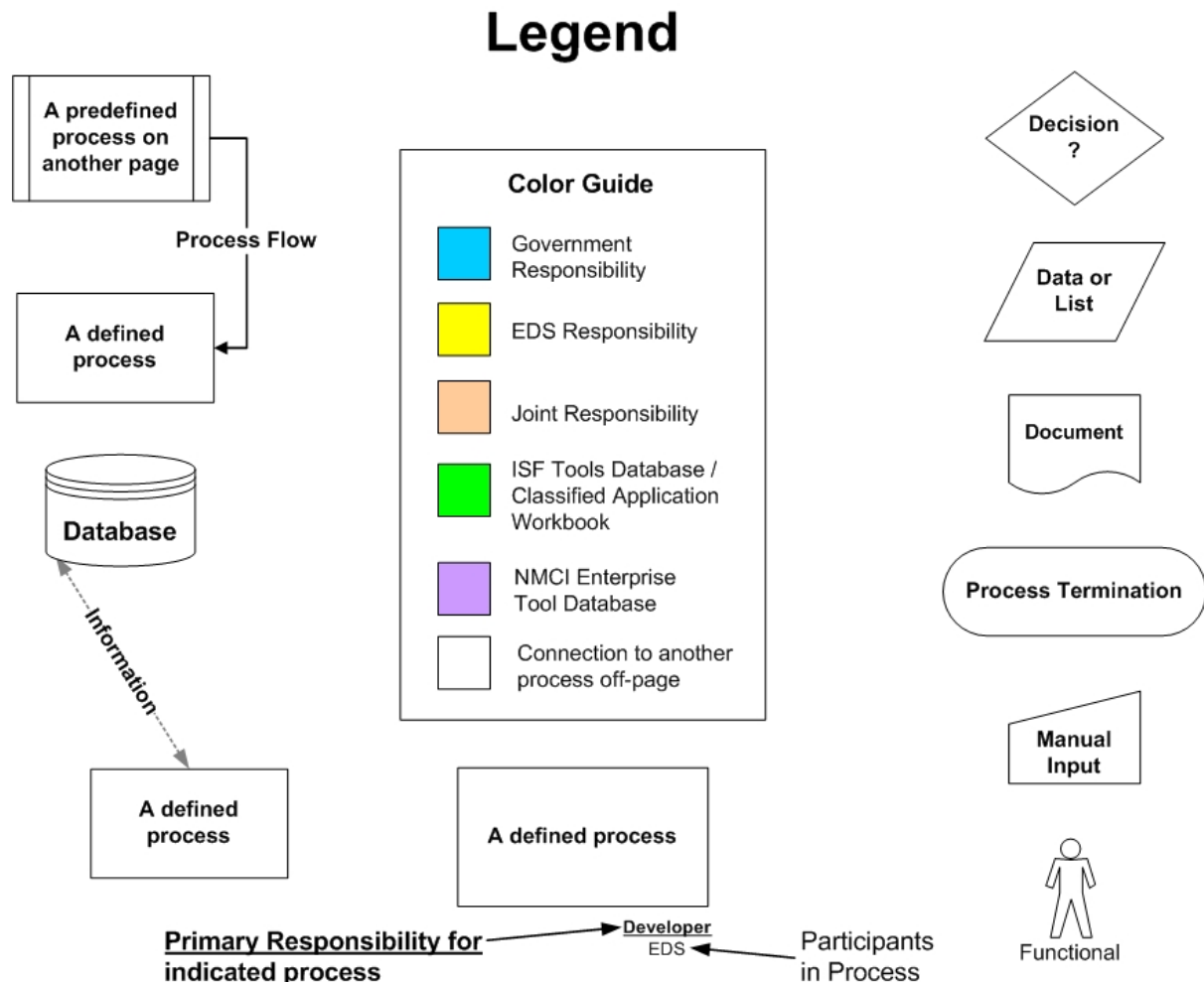
Legend

Figure 6-2 NRDP Legend

All CNO guidance, Naval messages, and requirements addressed in the NRDDG apply in the processing of classified releases. The classified release process is very similar to that for unclassified releases. This section addresses the differences.

6.1   RELEASE DEPLOYMENT PLAN (RDP)

The RDP provides specific information pertaining to a release that supports its deployment. It contains all documentation used throughout the NRDP to allow informed decisions regarding the release. The developer is responsible for plan development and maintenance. The developer, EDS, and release sites use this plan to manage the successful deployment of the release. Appendix G provides a template for the RDP.

The plan documents all information pertaining to reengineering or fixes made to the release to satisfy testing and compliance requirements. If certain functions of the release are known not to work, they are documented in the plan.

Developers are encouraged to use existing documents as part of the plan and should only create or capture previously undocumented information. The plan is submitted electronically on a CD.

6.2   REQUEST TO DEPLOY (RTD)

The RTD process is the only authorized means for achieving release approval and deployment into NMCI. This subsection provides detailed explanations of the NMCI RTD and the Deployment, Approval, Prioritization, and Scheduling process for planned and unplanned releases.

NNWC/NSCM is the designated approval authority for all Navy releases submitted for deployment into NMCI. HQMC(C4)/EBSS is the designated approval authority for all Marine Corps releases being submitted for deployment into NMCI.

The NNWC/NSCM and HQMC(C4)/EBSS accept all submitted RTDs for planned releases that are ready for deployment. The developer and Sponsoring Command submit unplanned releases on an as-required basis and the NNWC/NSCM and HQMC(C4)/EBSS process them upon receipt.

Submit RTDs electronically to:

   Navy: nmci_scm@spawar.navy.mil.

   Marine Corps: smblatnmci@mcsc.usmc.mil.

Appendix J contains the RTD form and RTD Instruction Guide (RIG). An electronic version of the RTD is available at the NMCI sites: www.nmci.navy.mil and http://www.nmciinfo.usmc.mil/

6.2.1   Quarantine/Kiosk Solutions [New (Emerging)]

Once a quarantine/kiosk application has a remedial solution, that solution is introduced into NMCI through the NRDP, starting with the RTD. The solution is handled the same as any other release; e.g., patch, modification, fix, upgrade, update, revision, or new (emerging).

Once the quarantine/kiosk solution has been deployed through the NRDP, it is removed from the quarantine/kiosk desktop and the legacy network. If the quarantine/kiosk (dual) desktop is no longer needed, it is also removed.

6.2.2   Quarantine/Kiosk Solutions (Using an Existing Radia Application)

Quarantine/kiosk applications that are remediated through the deployment of an existing NMCI application follow the RRPTE process, as discussed in Paragraph 3.5.6.6.

Once the quarantine/kiosk solution has been deployed through the NRDP, it is removed from the quarantine/kiosk desktop and the legacy network. If the quarantine/kiosk (dual) desktop is no longer needed, it is also removed.

6.2.3   Type of Release

During the Preparation process, the developer must determine if the release is a planned annual or point release or an unplanned Emergency/Urgent release. The developer must provide sufficient

justification for all Emergency/Urgent submissions to support the requirement for approving a higher-priority release over other releases into the NRDP.

6.2.3.1 Planned Release

The planned release is the fundamental process for submitting planned periodic upgrades to existing applications, quarantine/kiosk solutions, and the introduction of new (emerging) applications operating in NMCI. This includes documentation, packaging, testing and certification, accreditation and risk mitigation, and deployment.

The two types of planned releases are 1) planned annual release and 2) planned point release.

A planned annual release is a major modification or upgrade and is part of an annual application release or refresh plan. Technical refresh is the replacement or addition of components of similar functionality and technology offering expected cost or performance improvement. Refresh includes the periodic replacement of NMCI data seats with more capable machines. No more than two annual releases may be submitted for the same application in any calendar year.

A planned point release is a minor change that is not considered part of the annual refresh plan and is based on business processes, security, or fiscal changes, etc. No more than four planned point releases may be submitted for the same application in any calendar year.

Annual Release Plan

- Based on business changes
- Planned at least one year ahead
- Is part of the annual technology refresh plan
- Includes versions and major releases
- Requires full accreditation—DITSCAP
- Is limited to no more than two normal releases per year

Planned Point Release Plan

- Based on business and technical changes
- Planned six months ahead
- Includes minor changes, patches, modifications, upgrades, and updates
- Includes quarantine/kiosk application solutions
- Requires update to IATO/ATO
- Done quarterly with no more than four releases per year

6.2.3.2 Unplanned Release

The unplanned release process supports the deployment of a release that requires expedited handling through the NRDP. This is to repair an application that is nonoperational or has significant technical problems that render it incapable of performing its intended function. Quarantine/kiosk solutions that fit into this category are also considered unplanned releases. Unplanned release deployment is handled identically to the planned release deployment, with the following exceptions:

- Emergency/Urgent releases may be submitted at any time.
- They must be justified and approved by NNWC/HCMC(C4).

Emergency/Urgent Release Plan

- Not planned, technical changes
- IA assessment to evaluate risk
- Minor changes, patches, modifications, or fixes
- Runs normal process with urgent priorities assigned in a shortened timeframe

6.3   DEPLOYMENT APPROVAL, PRIORITIZATION, AND SCHEDULING

The Deployment Approval, Prioritization, and Scheduling processes take a release through the formal steps at the beginning of the NRDP. The entire process begins with the RTD.

6.3.1 Planned Release

Figure 6-3 displays the steps that the developer must follow to obtain NNWC/NSCM and HQMC(C4)/EBSS approval to deploy a release and complete the Approval, Prioritization, and Scheduling processes.
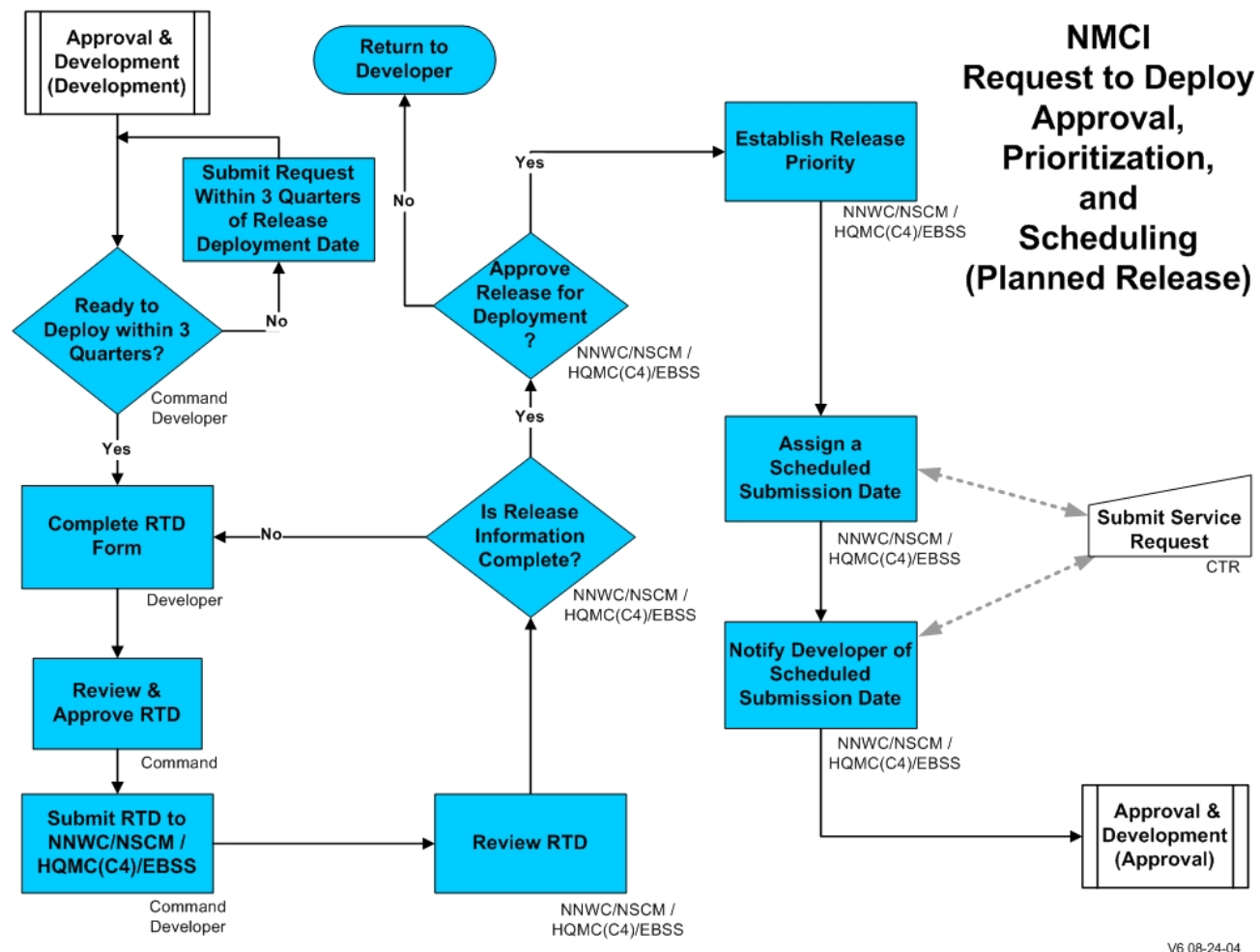
Figure 6-3 NMCI RTD Approval, Prioritization, and Scheduling (Planned Release)

6.3.1.1   Ready to Deploy Within Three Quarters?

After completing development on an application, the developer must determine whether the release can be successfully deployed into the NMCI environment within the next three quarters. If so, the developer initiates the RTD and the Planned Release process continues. If not, the developer retains the release until it is ready to deploy within the three-quarters requirement.

6.3.1.2   Complete and Submit RTD Form to Sponsoring Command

The RTD provides the basic information that NNWC/NSCM and HQMC(C4)/EBSS use to approve, prioritize, and schedule a release that supports an existing application, quarantine/kiosk solution, or a new (emerging) application being deployed in NMCI. The RTD form essentially drives the NRDP.

The developer is responsible for completing and validating the information on the RTD to ensure that it contains sufficient information regarding the release to enable NNWC/NSCM and HQMC(C4)/EBSS to approve and establish Prioritization.

Although some information on the RTD duplicates data contained on the CDA RFS/USMC RFS and DADMS questionnaire, the information on all forms is necessary to ensure efficient and systematic release processing. The vision is to transition the RTD into an online, automated format that can capture reusable data from other sources to prepopulate the form and streamline the Submission process.

6.3.1.3   Complete and Submit RTD to NNWC/NSCM and HQMC(C4)/EBSS

The Sponsoring Command reviews and approves the completed RTD prior to submission to NNWC/NSCM and HQMC(C4)/EBSS for review and approval.

Submit RTDs electronically to the following email addresses:

Navy: nmci_scm@spawar.navy.mil.

Marine Corps: smblatnmci@mcsc.usmc.mil

6.3.1.4   Review RTD

NNWC/NSCM and HQMC(C4)/EBSS have overall responsibility for ensuring that applications destined for NMCI meet all approved and established conformance requirements. (Section 4.0 and Section 5.0 detail these requirements.) They thoroughly review the RTD to ensure that it is complete and contains the information to process the request.

6.3.1.5   Is Release Information Complete?

RTDs are most commonly rejected due to incomplete, missing, or erroneous data, or because the NNWC/NSCM and HQMC(C4)/EBSS need the input to be clarified. The NNWC/NSCM and HQMC(C4)/EBSS return incomplete RTDs or those found to be outside the established submission criteria to the developer for corrective action or hold them for a later submission. Once corrected, the developer resubmits the RTD and the process continues.

6.3.1.6   Approve Release for Deployment?

When the information on the RTD has been verified as complete and accurate, NNWC/NSCM and HQMC(C4)/EBSS decide whether to approve the deployment. If the request is disapproved, the developer and Sponsoring Command are notified of the disapproval and given a detailed description of the disapproval reason, and the RTD is returned without action. If the request is approved, the RTD proceeds to Prioritization.

6.3.1.7   Establish Release Priority

Normally, approved RTDs are prioritized using the "First In, First Out" (FIFO) method. If additional Prioritization is warranted, the NNWC/NSCM and HQMC(C4)/EBSS process the release to determine its priority.

A systematic scoring method determines the priority of a release for Scheduling. A release entering the Prioritization process is assigned a weighted score based on information provided on the RTD.

After assessing the score, the NNWC/NSCM and HQMC(C4)/EBSS assign a priority, and the RTD proceeds to Scheduling.

6.3.1.8   Assign a Scheduled Submission Date

In determining a scheduled submission date, the NNWC/NSCM and HQMC(C4)/EBSS review the weighted score, complexity, required deployment date, and the date the release will be ready for submission to the Applications Lab. The NNWC/NSCM and HQMC(C4)/EBSS adjust the overall schedule to accommodate any priority applications.

6.3.1.9   Notify Developer of Scheduled Submission Date

After establishing a submission date to the Applications Lab, the NNWC/NSCM and HQMC(C4)/EBSS notify the developer. The developer must ensure that all requirements have been met for submission of a release to the Applications Lab on the scheduled submission date. Paragraph 6.6 contains requirements for application submission.

6.3.2   Unplanned Release

The unplanned release process supports the deployment of a release that requires expedited handling through the NRDP to repair an application that is nonoperational or has significant technical problems that render it incapable of performing its intended function.

The unplanned release process is identical to the planned release process with the following exceptions:

- Emergency/Urgent releases may be submitted at any time.
- They must be justified and approved by the NNWC/NSCM and HQMC(C4)/EBSS.

The RTD is marked as an unplanned Emergency/Urgent release. It is submitted and processed on an as-required basis to support mission-essential applications. Special care must be given to justify the requested status in order to ensure that necessary information is provided to enable the NNWC/NSCM and HQMC(C4)/EBSS to determine a rapid approval.

Figure 6-4 displays the steps the developer and Sponsoring Command must follow to obtain the NNWC/NSCM and HQMC(C4)/EBSS approval to deploy an unplanned Emergency/Urgent release and complete the Prioritization and Scheduling processes. The following paragraphs address only those areas that differ from the Planned Release process.

RTDs must be submitted electronically for processing to the following email addresses:

Navy: nmci_scm@spawar.navy.mil.

Marine Corps: smblatnmci@mcsc.usmc.mil
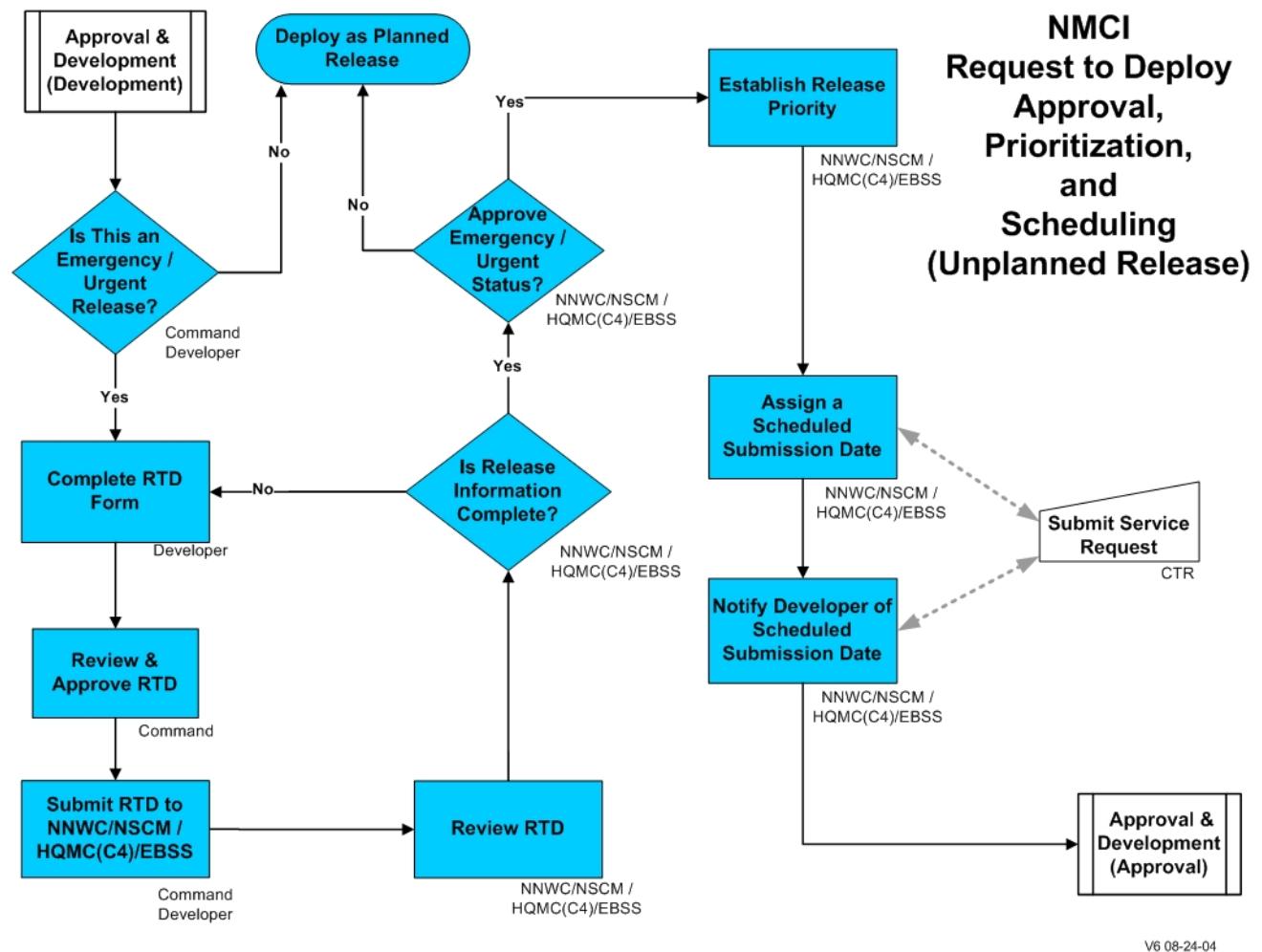
Figure 6-4 NMCI RTD Approval, Prioritization, and Scheduling (Unplanned Release)

6.3.2.1 Is This an Emergency/Urgent Release?

The developer and Sponsoring Command must determine if the release has an Emergency/Urgent requirement. The NNWC/NSCM and HQMC(C4)/EBSS consider all unplanned Emergency/ Urgent releases on an as-required basis upon submission. Developers must provide clear and concise information to justify the requirement for an Emergency/Urgent release. The process all unplanned release submissions within three working days of receipt.

6.3.2.2 Approve Emergency/Urgent Status?

NNWC/NSCM and HQMC(C4)/EBSS pay special attention to the justification and may request additional information or clarification prior to making a determination. When the information on the RTD has been verified as complete and accurate, the NNWC/NSCM and HQMC(C4)/EBSS approve or disapprove the request for an unplanned (Emergency/Urgent) release deployment. If the request is disapproved, the developer is notified and the RTD is prioritized and scheduled as a planned release. Appeals on the disapproval can be made directly to the NNWC/NSCM and HQMC(C4)/EBSS. An approved request is submitted for Prioritization as an unplanned (Emergency/Urgent) release.

6.3.2.3   Assign a Scheduled Submission Date

Based on the established priority, release media availability date, and required deployment date, the NNWC/NSCM and HQMC(C4)/EBSS schedule the Emergency/Urgent release to ensure the earliest opportunity to deploy.

6.3.3   RTD Cancellation

The developer is responsible for ensuring that all required deliverables are submitted on time to EDS. Failure to comply with established milestones creates significant release deployment delays, unnecessarily tying up limited resources that can be employed supporting other mission-critical application releases.

The NMCI PMO, in conjunction with NNWC, established a policy for the cancellation and resubmission of RTD-sponsored applications. The cancellation policy applies to developers who fail to meet required Government milestones. Developers are responsible for providing complete and accurate applications submission packages consistent with the NRDDG.

The failure of a developer to supply complete and accurate information in a timely manner at the following key milestones cancels the RTD:

- Media submission date negotiated between the NSCM and developer

- Issuance of the certification letter after media submission. (This is 20 days for a nonplanned release or 45 days for a planned release.)

- Submission of a complete RDP and pilot-test mapping.

This cancellation and resubmission policy is required to ensure resources focus on post transition applications that have completed documentation, as defined in the NRDDG. This policy applies only to applications submitted for test, certification, and deployment to NMCI seats through the required process. Sponsored applications are cancelled if the developer fails to comply with the submission of required documentation, media, or other Government furnished information (GFI).

The NSCM sends a compliance notice to the developer through telephone and email when an application misses an RTD major deliverable date (media, RDP, etc.). The compliance notice states that the developer has 48 hours to submit the nonplanned RTD deliverable or 2 weeks to submit the planned deliverable. If the developer does not meet the compliance notice requirements, that application RTD is referred to the NNWC (Navy) or the MCNOSC (Marine Corps) for cancellation and rescheduling. Upon confirmation of cancellation from the NNWC or MCNOSC, the NSCM notifies the developer and its command that the RTD has been cancelled and the RTD for the application must be resubmitted. The cancellation notice provides the following information:

- Guidance for resubmission of a new RTD
- Identification of the NSCM CCS POC to assist the developer with resubmission.

6.4   NOTIONAL PROCESSING TIMELINES FOR NRDP

In order to maintain control and discipline in the NMCI environment, a formal Submission and Deployment process is followed. Figure 6-5 depicts the notional timeline for submitting and processing a planned release, and Figure 6-6 depicts the notional timeline for an unplanned release. Both timelines are meant as guidelines. A release may complete the process in less but no more than the indicated time; e.g., 90 calendar days for planned or 45 calendar days for planned. The NRDP follows the pattern from left to right.

Figure 6-5 Timeline for NMCI Application Release Deployment Process (Planned Release)

NMCI Notional Application Release Deployment Process Timeline
(Unplanned Release)
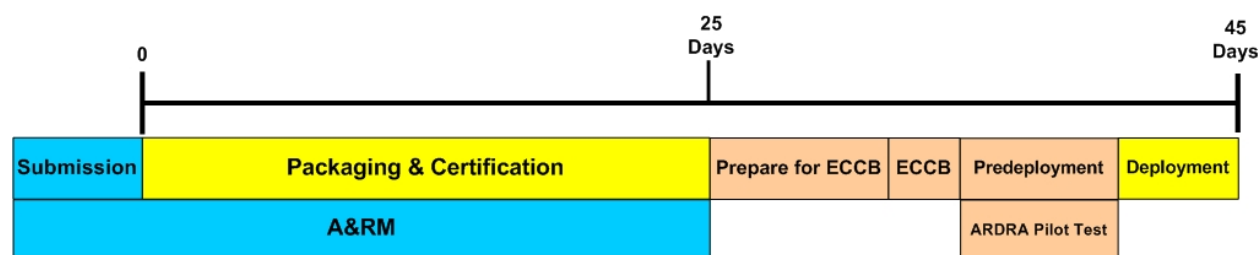
Figure 6-6 Timeline for NMCI Application Release Deployment Process
(Unplanned Release)

6.4.1   Submission (Government)

To avoid overwhelming the system, the developers have an assigned specific submission date to deliver their releases to the Applications Lab for processing. The developer is responsible for ensuring that the release has completed development prior to scheduled submission date. In the event a scheduled submission cannot be met, the developer would notify the designated CCS representative assigned the release to remove that release from the schedule. Once the situation that caused the release to be removed from the submission schedule is resolved, the developer asks the designated CCS representative to assign a revised submission date. For further information, refer to Paragraph 6.6.

6.4.2   Packaging and Certification (EDS)

EDS processes the release at the Applications Lab in San Diego. The application is received, audited, packaged, client tested, connectivity tested (if required), and certified, with status maintained in the ISF Tools Database. The developer is required to participate in this testing. For further information, refer to Paragraph 6.7.

6.4.3 Accreditation and Risk Mitigation (A&RM) (Government)

A&RM is required for annual releases and those releases that have an impact on the IA posture of an application. The supporting documentation for the A&RM process actually starts the moment a release is conceived. This 10-day period includes the finalizing and submission of the A&RM (DITSCAP) documentation to the NMCI PMO/MCNOSC for review and submission to the NMCI DAA/USMC DAA. For further information, refer to Paragraph 6.8.

6.4.4 Enterprise Change Control Board (ECCB) (Joint)

The final release solution and IA impacts for a release are submitted for ECCB review and approval. A formal ECCB output and approval is required for all annual releases and those point or unplanned Emergency/Urgent releases that have an IA impact. For further information, refer to Paragraph 6.10.

6.4.5 Predeployment, Application Release Deployment Readiness Activity (ARDRA), Pilot Test (Joint)

This time addresses any testing needed to ensure a successful deployment at the sites/bases involved. The ARDRA process actually starts once the packaging, certification, and testing in the Applications Lab and San Diego NOC labs are complete. ARDRA is conducted on-site and is not a mandatory step, but is used when a specific deployment concern needs to be addressed at the site. The decision to run a Pilot Test for deployment rests jointly with the specific EDS SM and the developer. For further information, refer to Paragraph 6.11, Paragraph 6.12, and Paragraph 6.13.

6.4.6 Deployment (EDS)

Once the release has completed all testing and received all approvals, it is pushed or locally loaded to the desktop. EDS SMs and developers play an important role in these steps. For further information, refer to Paragraph 6.14.

6.5 PREPARATION

Figure 6-7 depicts the Preparation process through which the developer begins to collect, document, and organize information prior to submission of the release for packaging, testing, certification, and deployment. During this process, the developer completes the following tasks:

- Begin Application Mapping Plan
- Develop ARDRA/Pilot Test Plan
- Gather Existing Precertification Data, Systems Architecture Connectivity Diagrams, ATO/IATO, & DITSCAP Documentation
- Precertification
- Begin New or Updated DITSCAP Documentation
- Develop RDP
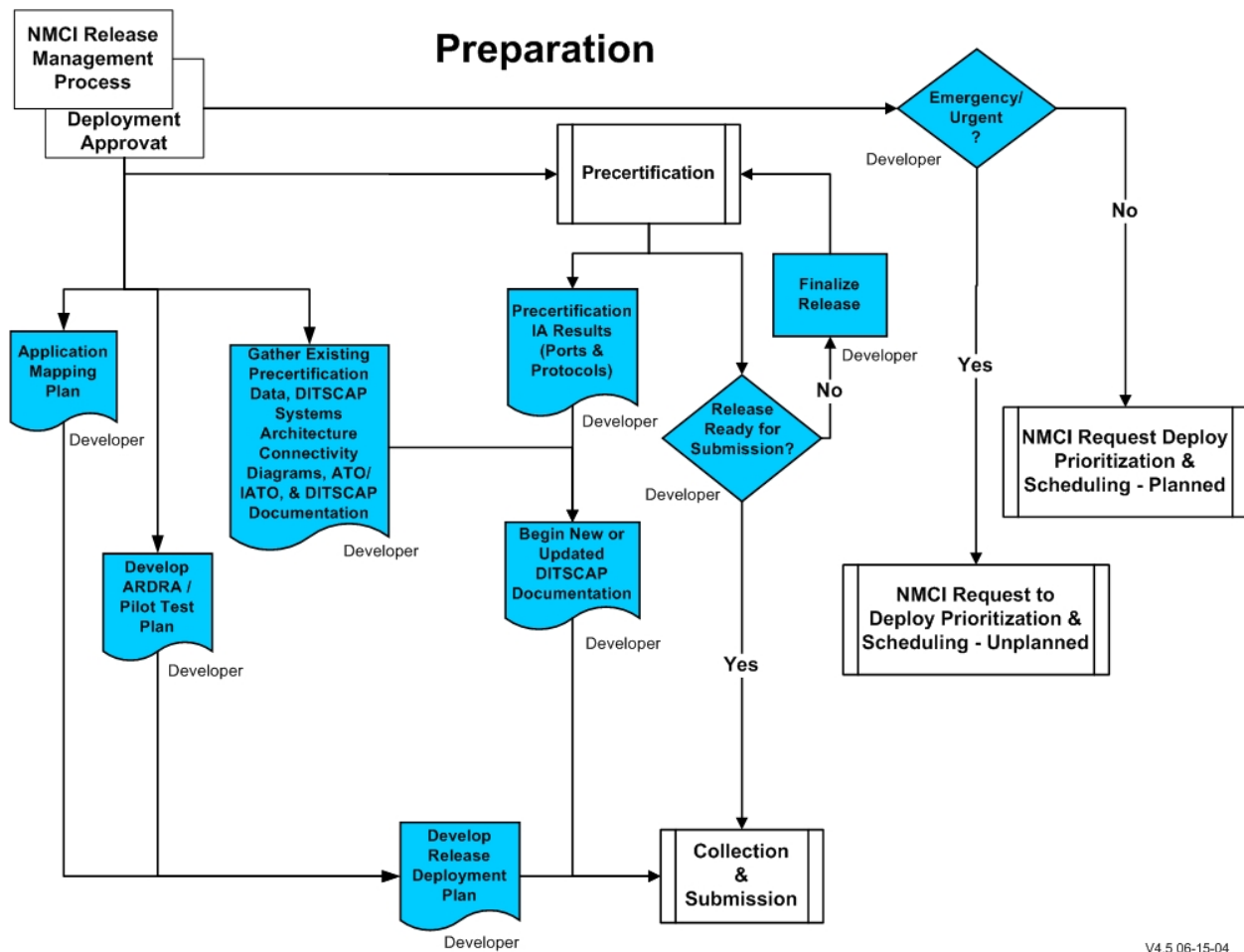
Figure 6-7 Preparation Process

6.5.1   Begin Application Mapping Plan

The developer must work closely with the sites to ensure that application mapping is performed to the support the deployment of the release. This includes an update of the rationalized list. EDS uses this information to ensure that the release is deployed in accordance with the application mapping document contained in the RDP (see Appendix I.3).

6.5.2   Develop ARDRA/Pilot Test Plan

The key to the success of the ARDRA/Pilot Test is a well designed plan. This requires commitment from appropriate Commands, planning for availability of personnel and equipment, but most importantly, communications between all parties, including EDS, developer, affected customers, and Commands. As part of the RDP, the developer must develop an ARDRA/Pilot Test plan well in advance of the start of the test. (Refer to the ARDRA/Pilot Test checklist in Appendix I.6.)

6.5.3 Gather Existing Precertification Data, Systems Architecture Connectivity Diagrams, ATO/IATO, & DITSCAP Documentation

At this point in Preparation, the developer has gathered all existing C&A information, such as Systems Architecture Connectivity Diagrams, existing ATO/IATO, DITSCAP documentation, DITSCAP, and any other pertinent documentation, for use in obtaining a final ATO from the NMCI DAA. This information is kept on file with the developer for use later in the process as the final DITSCAP documentation is developed and submitted.

Development and update of System Architecture Connectivity Diagrams are used to define the desktop and server connection topology as part of the DITSCAP process. This topology must also include the ports and protocols required for the desktop to communicate across the boundary to the hosting services. The System Architecture Connectivity Diagrams become part of the DITSCAP documentation.

Inventory and cataloging of all data pertaining to Precertification and the ATO/IATO must be performed during Preparation. This information is entered into the RDP and is used throughout the Release Deployment Process.

6.5.4 Precertification

Figure 6-8 depicts the Precertification process, which is designed to evaluate the release to ensure its compliance with the NMCI software configuration and operating environment standards. Performance of Precertification ensures that the submitted release meets those standards; this eliminates the potential for the EDS Applications Lab becoming a developer Beta test site. For the Navy, the NMCI PMO performs Precertification for all applications with the developer at the NMCI PMO Precertification facility in San Diego, CA. Navy application developers must submit their Application Submission Packet to the NMCI PMO Precertification facility in San Diego, CA. For the Marine Corps, EBSS performs Precertification centrally with the developer at the Marine Corps Applications Integration Testing Laboratory (MCAIT Lab) in Quantico, VA.

During this process, the developer completes the following tasks:

- Obtain software licenses.
- NMCI functional compliance
- NMCI IA compliance
- Capture ports, protocols, and services
- Develop/update systems architecture connectivity diagrams.
- Release package with Advanced Publisher

For classified applications the ports, protocols, and services information is protected and is documented in the Classified Application Workbook.
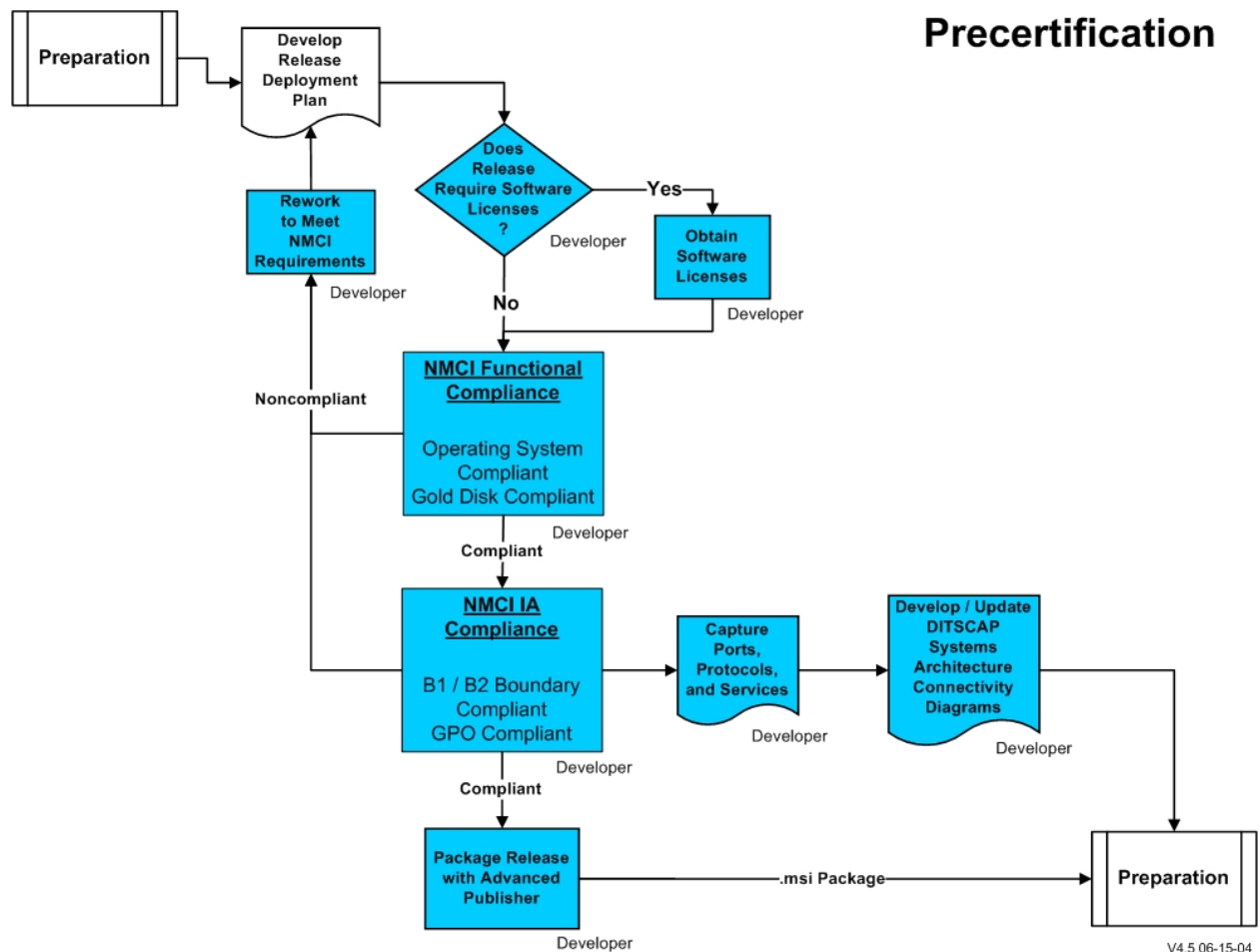
Figure 6-8 Precertification Process

6.5.4.1 Obtain Software Licenses and/or License Keys

All applications that operate in NMCI must have the appropriate licenses and/or license keys.
Software licenses are commonly obtained with the software purchase or can be purchased separately
for additional users. The license explains the terms and agreements for use of the subject software.
Developers must submit a copy of the software license.

Navy policy requires that all software operating on an NMCI seat have a valid license, if required.
The Government is responsible for ensuring that this requirement is met. The Application
Submission Packet includes a copy of the license, if required,

6.5.4.2 NMCI Functional Compliance

This task ensures that the release is compliant with the operating system and the Gold Disk load set.

6.5.4.3   NMCI IA Compliance

This task ensures that the release is compliant with the NMCI enclave protection policy (Boundary 1), the legacy-to-NMCI network connectivity (Boundary 2), and Group Policy Object (GPO) (Boundary 4) security requirements.

6.5.4.4   Capture Ports, Protocols, and Services

This task documents the ports, protocols, and services used by the release to satisfy connectivity requirements beyond the desktop. This information is used as part of the development of the new or updated DITSCAP documentation and as part of a Boundary Change Request, if required.

6.5.4.5   Develop/Update Systems Architecture Connectivity Diagrams (DITSCAP)

This task requires the development and update of System Architecture Connectivity Diagrams to define the desktop and server connection topology as part of the DITSCAP process. This topology must also include the ports and protocols required for the desktop to communicate across the boundary to the hosting services. The System Architecture Connectivity Diagrams become part of the DITSCAP documentation.

6.5.4.6   Package Release with Advanced Publisher

For NMCI certification testing, EDS accepts either raw media or Microsoft installer-compliant installation packages (.msi) generated from Radia Advanced Publisher using the NMCI packaging standards. Refer to Appendix K for NMCI packaging standards/best practices for MSI.

Currently, the EDS agreement with Novadigm is to allow only '.msi' packages created with Radia Advanced Publisher to be used within NMCI. Novadigm is allowing the use of Radia Advanced Publisher for NMCI application packaging at no additional cost.

Radia Advanced Publisher is a standalone software tool used to create '.msi' packages. The goal of using Advanced Publisher is to create a compact, fully functional packaged application for deployment across the enterprise. NMCI has standardized Advanced Publisher as the tool of choice to create '.msi' packages outside the Applications Lab. Radia Advanced Publisher is a field deployable version of the NMCI enterprise-wide software management tool called Novadigm Radia. EDS may deploy using either '.msi' packaged applications or by converting them to Novadigm Radia packaged 'instances'. (The latter is the long-term NMCI management strategy.)

NMCI uses Novadigm Radia to automate the management of software throughout the full deployment lifecyzle to package, analyze, inventory, deploy, repair, update, and remove an application.

Use of Radia Advanced Publisher

Radia Advanced Publisher does not require connectivity to a Radia server. It is wizard driven, which allows the developer/MCAIT Lab to make a standard (enterprise) configuration package (which should be the developer goal) from their own installed application. Specially configured packages that may be needed due to local or environmental requirements can also be created.

Required Training

Radia Advanced Publisher training is available from EDS at its San Diego facility at no charge to developers at this time, but attendees must pay their own travel and lodging expenses. Radia Advanced Publisher '.msi' received from developers that have not had at least one person attend EDS training are rejected. And '.msi' packages received from developers do not conform to NMCI packaging standards are rejected. MCAIT Lab personnel have attended EDS training in order to properly package Marine Corps applications.

EDS provides no more than one free copy of Radia Advanced Publisher to any developer that had at least one certified attendee in a Radia Advanced Publisher training class. Each class is 5 days long with no more than six people per class. If the class is conducted off-site, the requesting activity covers the instructor's travel and lodging expenses. Attendees of classes conducted in the San Diego EDS facility need to submit a Visit Authorization Letter (VAL) to the EDS Security Manager prior to the class. Appendix I.5 provides more information on obtaining an EDS visit request.

This class has one terminal objective: Train developers to use the Radia Advanced Publisher to package .msi and non-.msi applications to NMCI packaging standards.

- Event 1: Packaging .msi applications. If developers have simple .msi applications that need packaging, attendees should bring them.

- Event 2: Packaging non-.msi applications. If developers have simple non-.msi applications that need packaging, attendees should bring them.

- Event 3: Packaging applications that have no installer. This event should be short and simple to allow the attendees ample opportunity to continue packaging their .msi and non-.msi applications.

- Events 4 and 5: The remainder of the week is spent packaging the two example applications used in class until the attendees get a feel for packaging each type of application. After that, the instructor works individually with the attendees on their own applications. Attendees attempt to package their own applications, and the class instructor performs quality assurance on their work. This way, attendees are trained and work on their applications.

For more information and the schedule for Radia Advanced Publisher classes, please contact Gary Smith at gary.smith-eds@eds.com.

6.5.5 Begin New or Updated DITSCAP Documentation

New or updated DITSCAP documentation must be submitted in accordance with the provisions of Paragraph 4.7 for all planned releases. The developer uses the information previously obtained by gathering existing IATO/ATO and DITSCAP documentation in order to complete this requirement.

The information contained in the DITSCAP documentation is used to obtain full accreditation and issuance of an IATO/ATO. The developer must determine whether the release requires a new or updated DITSCAP submission. Once these requirements have been met, the developer can submit the DITSCAP document to the service NMCI DAA for review and approval.

6.5.6   Develop RDP

The developer begins creating the RDP as the last step of the Preparation process. The information obtained during the Preparation and Precertification processes forms the baseline for the RDP. The RDP is used throughout the Release Deployment Process, and the ECCB reviews it prior to deployment of the release. Appendix G contains an RDP template and user guide.

6.6   COLLECTION AND SUBMISSION

Figure 6-9 depicts the Collection and Submission process. This process results in the completion of an Application Submission Packet, an updated RDP and new/updated DITSCAP documentation. The Certification CLIN and SRM (MAC) or Distribution CLIN are submitted to the Service Request Team. NET will perform this submittal when it is available to support this requirement. During this process, the developer completes the following tasks:

- Generate CDA Request for Services (RFS)/USMC RFS
- Complete and submit an Application Submission Packet
- Update Release Deployment Plan
- Finalize New or Updated DITSCAP Documentation.
- Submit RDP.
- Packaging and Certification- Submit Certification CLIN and SRM (MAC) or Distribution CLIN to Service Request Team.

Collection and Submission

CDA RFS = Developer Request for Service

V4.5 06-15-04

Figure 6-9 Collection and Submission Process

6.6.1   Generate CDA Request for Services (RFS)/USMC RFS

The Navy developer must complete a CDA RFS in the ISF Tools Database before the Application
Submission Packet can be submitted to the Applications Lab or North Island NOC for processing.
Marine Corps developers send an electronic RFS to EBSS (smblatnmci@mcsc.usmc.mil) for input
to the ISF Tools Database. This RFS number is used to obtain information regarding the status of the
release as it undergoes the NRDP.

The developer is responsible for maintaining information on all classified releases in the Classified
Application Workbook and ISF Tools Database. Ports, protocols, services and IP addresses will be
maintained in the Classified Application Workbook. Only personnel with appropriate security
clearances may handle and store classified material

6.6.2   Application Submission Packet

The developer creates an Application Submission Packet that consists of software media and
documentation. Navy developers deliver their Application Submission Packet to the to the NMCI
PMO Precertification facility in San Diego, CA for testing, certification, and deployment. Marine

Corps developers deliver their Application Submission Packet to the MCAIT Lab for Precertification. The NMCI Precertification Lab and the MCAIT Lab then deliver the precertified packet to the EDS Applications Lab. The preferred method is to write the packet to a CD and ship it through a traceable means (e.g., FedEx, UPS, or registered mail). The developer is encouraged to retain a copy of the packet in the event of loss in transit. The Application Submission Packet contains the following:

- Media or .msi instance
- Dependant or supplemental media
- Copy of licenses and/or license keys
- Installation instructions
- Detailed test scripts/test cases

An Application Submission Packet is considered complete when the following requirements are met:

- RFS has been submitted in ISF Tools.
- A complete copy of the raw media or .msi instance is provided.
- Licenses and/or license keys are provided.
- Installation instructions are included.
- The software media is virus free.

If these conditions are not met, the Application Submission Packet is rejected. The deployment schedule will be adjusted once the new Application Submission Packet is received.

6.6.2.1 Media or .msi Instance

The EDS Applications Lab accepts either raw media or a Radia Advance Publisher .msi instance. This media consists of a clean and virus-free copy of the software. Only developers who received training and software from EDS to use Radia Advance Publisher may submit an .msi instance. Section 6.5.4.6 provides more information on Advance Publisher training.

6.6.2.2 Dependent or Supplemental Media

If the release requires the use of dependent or supplemental software, as indicated in the RDP, a clean and virus-free copy of the software must be submitted with the Application Submission Packet. If the software was previously introduced into NMCI, the developer may request the Applications Lab to use the software version maintained in the DSL.

6.6.2.3 Copy of Software License and/or License Keys

Navy policy requires that all COTS software and GOTS with embedded COTS software operating on an NMCI seat have a valid license. The Government is responsible for ensuring that this requirement is met. A copy of the license and/or license keys must be included in the packet,

6.6.2.4 Installation Instructions

The Applications Lab uses the installation instructions as part of the Packaging process in creating a Novdigm Radia instance. The developer must ensure that the installation instructions document all specific tasks for a release to be properly installed on the NMCI seat. Appendix I.2 provides an example of the installation instructions.

6.6.2.5 Detailed Test Scripts/Test Cases

The detailed test scripts and test cases describe the objectives, scope, approach, and focus of the software test that are performed as part of Packaging & Certification by the Applications Lab. The detailed test scripts and test cases include the following:

- What items will be tested
- At what level will testing be performed
- What is the test sequence?
- How will the test strategy be applied to each item?
- What is the configuration of the test environment?

Each test plan is intended to verify and validate the software being tested. The software must satisfy its functional and operational design requirements.

A test case should contain the following items to determine that an application is functioning correctly:

- Test case identifier
- Test case name
- Objective
- Test conditions/setup
- Input data requirements.

Cases should be prepared early in the development cycle since thinking through the operation of the application can identify problems.

6.6.3 Update Release Deployment Plan

Upon completion of all collection and submission tasks, the developer updates the RDP and forwards a copy of the completed RDP to the NMCI PMO for review and submission to the APM. During this process, the developer completes the following tasks:

- Develop Communications and Key Correspondence Plan.
- Complete Training Plan.
- Complete Implementation Plan.
- Complete ARDRA/Pilot Test Plan.

6.6.3.1 Develop Communications and Key Correspondence Plan

A sound and effective communications plan is essential to the deployment of a release on the NRDP desktop. The plan includes any POCs (e.g., Government, EDS, and contractor support personnel) that the developer indicates require notification during the NRDP. This plan also includes key correspondence that supports the deployment of the release. The RDP documents and maintains this information.

6.6.3.2 Complete Training Plan

The developer determines if the deployment of the release requires end user training. If training is required, the developer must provide a detailed description of that training and its anticipated completion date. The RDP includes this information.

If training is required for the implementation team, the developer must provide a Training Plan summary, and if necessary, attach a copy of the POA&M to the RDP.

6.6.3.3 Complete Implementation Plan

The RDP contains information specific to the Implementation Plan. The developer must complete all questions on the RDP with regard to implementation.

6.6.3.4 Complete ARDRA/Pilot Test Plan

The key to the success of the ARDRA/Pilot Test is a well designed plan. This requires commitment from appropriate Commands, planning for availability of personnel and equipment, but most importantly, communications between all parties, including EDS, developer, affected customers, and Commands. As part of the RDP, the developer must develop an ARDRA/Pilot Test plan well in advance of the start of the test. Refer to the ARDRA/Pilot Test checklist in Appendix I.6.

6.6.3.5 Application Mapping Plan

The Application Mapping Plan is critical to the successful deployment of applications to existing NMCI seats. Application mapping is a Government responsibility, but when possible, the Navy NMCI PMO NSCM Office (QUEST and CCS) and Marine Corps MCSC EBSS work with EDS to supply current mapping information for the application being upgraded or replaced. The developer must provide EDS with a complete Application Mapping Plan for release deployment. Refer to Appendix I.3.

> **NOTE:** Application mapping in NET can only occur if the application currently resides on the rationalized list in the ISF Tools Database for the ordering Command.

For classified applications, the developer identifies the sites, servers, and users that will receive the release. Developers must ensure that the documentation remains unclassified by omitting any ports, protocols, services, and IP addresses. EDS uses this information to ensure that the release is deployed to the proper sites, servers, and users.

The Application Mapping process begins upon release of a Naval message generated by the Navy NMCI PMO NSCM Office (QUEST and CSS). This message informs all activities about the

progress of enterprise applications through the Deployment process. Upon receipt of the message, the developers and activities list all sites affected by the release and provide a complete application mapping for release deployment. The developer and activity or Command must announce the release to allow all subordinate users to coordinate with the site CTR/ACTR to ensure they are mapped to the release prior to deployment. EDS uses this information to ensure that the release is deployed in accordance with the application mapping.

The developer/CTR identifies and approves the application mapping of each release before EDS initiates deployment. This includes an update of the rationalized list. Direct any questions or concerns on this subject to:

Navy: NSCM Service Desk at NSCM_SCM@spawar.navy.mil or (619) 524-4554

Marine Corps: MCSC EBSS at smblatnmci@mcsc.usmc.mil or (703) 784-4898.

NOTE: The financial impact is significant for seats that individually request the release subsequent to its initial deployment. Requestors are charged for an SRM (MAC) or Distribution CLIN using the RRPTE process to have the application pushed to their desktops. A lack of application mapping does not stop the deployment of the application to the tier servers; it adds additional costs to the Government/Command to distribute the release to client workstations.

6.6.3.6   Application Mapping Submission Timeline

Planned Release

Application mapping documentation must be submitted no later than Packaging and Certification process completion. The Navy NMCI PMO (NSCM) monitors and manages this timeline.

Unplanned Release

Application mapping documentation must be submitted no later than 7 days prior to Packaging & Certification process completion. The Navy NMCI PMO (NSCM) monitors and manages this timeline.

6.6.4   Finalize New or Updated DITSCAP Documentation

The developer finalizes DITSCAP documentation and submits it to the Navy NMCI PMO NSCM or to the Marine Corps MCSC/EBSS for review and submission to the service NMCI DAA.

6.6.5   Submit RDP

The developer forwards the RDP to the Navy NMCI PMO NSCM or to the Marine Corps MCSC/EBSS for review and submission to the EDS APM. The NSCM reviews the RDP and ensures that all required documentation and information are present. Upon completion, the NSCM forwards the RDP for unclassified releases to the assigned APM and for classified releases to the NAVCOMTELSTA – NMCI NOC, Naval Air Station North Island.

6.6.5.1 Planned Release

The developer must submit the RDP for planned releases to the appropriate agency on or before the application completes packaging and certification.

6.6.5.2 Unplanned Release

The developer must submit the RDP for an unplanned release to the appropriate agency at the same time as the Application Submission Package is submitted to the Applications Lab for processing. If this does not occur, the release will not begin processing.

6.7 PACKAGING AND CERTIFICATION

Figure 6-10 depicts the Packaging and Certification process. The Government and EDS share joint responsibility in completing this process to ensure that all applications deployed to the desktop meet NMCI standards. Applications Lab personnel update the ISF Tools Database and the Classified Application Workbook with the results of the completed tasks.
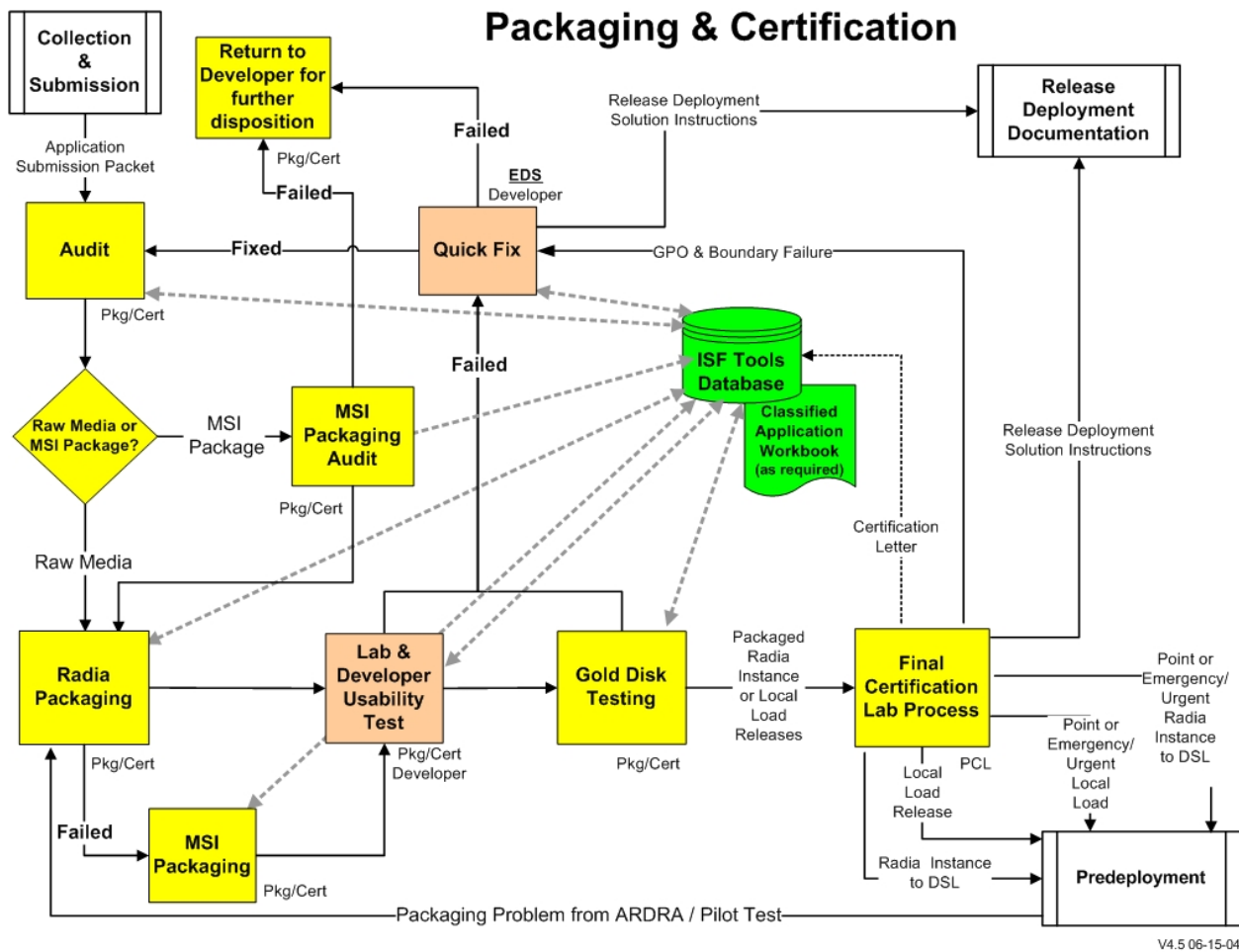

Figure 6-10 Packaging and Certification

During this process, the Applications Lab in San Diego completes the following tasks:

- Audit the Application Submission Packet
  – Determine Raw Media or .msi Package
  – Audit the .msi Instance
  – Package the .msi Instance and Raw Media to a Radia Instance.
- Radia Packaging
- Lab and Developer Usability Test
- Gold Disk Testing
- Quick Fix
- Final Certification Lab Process

The overall goal of the NMCI program is for EDS to distribute all releases through a Novadigm Radia instance. Therefore, EDS uses a software management tool for deploying an enterprise solution, rather than loading locally.Audit the Application Submission Packet

The Audit process ensures the Application Submission Packet is complete and contains all the required information pertaining to the release. Once the packet is verified as being complete, the release continues through the remaining process steps. If the packet is determined to be incomplete, the release is removed from the process, the developer is notified of the discrepancy, and upon completion of corrective action, the release continues through the remaining process steps.

6.7.1.1   Determine Raw Media or .msi Package

EDS reviews the submitted media to determine whether it is raw media or an .msi instance. This supports the next step in the audit process to identify necessary action to complete EDS packaging of the media.

6.7.1.2   Audit the .msi Instance

An .msi instance is audited to ensure that it is complete and ready for repackaging to create a Novadigm Radia instance.

6.7.1.3   Package the .msi Instance and Raw Media to a Radia Instance

A packet containing raw media is packaged to create a Novadigm Radia instance. In the event that the media cannot be packaged into a Novadigm Radia instance, the media is packaged as an .msi instance. If the media cannot be packaged into an .msi instance, it is returned to the developer for corrective action.

6.7.2   Radia Packaging

EDS uses Novadigm Radia as the primary tool for packaging software to create an enterprise, site-specific, or customized instance. It enables EDS to automate the tasks associated with the management of software deployed on NMCI seats.

The primary objective is to deploy applications on an enterprise scale using the Navadigm Radia tool. However, sometimes, the software cannot be packaged using this tool at an enterprise level and must be deployed locally. The following paragraphs define a Push and the exception (a local load).

6.7.2.1   Push

A Push is defined as the deployment of an application electronically from the NOC to the NMCI seat. This preferred means of deployment is able to deploy an application across the enterprise. Push instance names start with an L_, O_, or U_, which are defined as follows:

- L = Legacy applications (COTS, GOTS, all other)
- O = Optional (enterprise) applications
- U = Unit applications (site specific, customized)

These instances all require a Service Request (MAC) or Distribution CLIN for distribution.

6.7.2.2   Local Load

A local load is an application that is not packaged as a Radia instance for central management and distribution. EDS site personnel deploy any local-load applications to the seat. A local load is not to be used for a new (emerging) application, UNLESS EXTENUATING CIRCUMSTANCES WARRANT ITS USE. THIS IS DECIDED ON A CASE-BY-CASE BASIS. Local load is used only as a last resort for updates to previously deployed applications that failed to be packaged as a Radia instance. The following rules apply:

- If possible, a local load is packaged as a Y_ instance (.msi application).

  NOTE: An X_ instance denotes that the instance is non-Radia managed and is manually installed. It is an output of LADRA during Transition, not as part of the NRDP and Post Transition. You may see an X_ instance as part of RRPTE. It is approved for further deployment with the condition that it can only be deployed at the same site where it was created.

- The application is NMCI validated, but not NMCI certified. NMCI certified signifies it has been tested in the lab and packaged in standard Radia.

- Ordering uses a Physical MAC only. (The Distribution CLIN does not apply.) When the order is received and processed, it is forwarded to the local Base Operations team for delivery. The Base Operations team downloads the application from the Enterprise file share, contacts the recipient, and schedules a date/time for installation on the NMCI seat.

6.7.3   Lab and Developer Usability Test

Figure 6-11 depicts the Lab and Developer Usability Test process. The Usability Test verifies the IA compliance of the release, based on information obtained by the developer during the Collection and Submission process. When planned releases are being tested, the developer and/or designated representative must be available to help with problem solving through Quick Fix (Paragraph 6.7.5).

The packaged release is tested in an NMCI-simulation test cell at the Applications Lab. The developer and/or designated representative assists with configuration changes required for installation and updates the supporting documentation.

The Applications Lab is responsible for completing the following tasks:

- Run network diagnostics tool using a sniffer (EtherPeek software) to trace the ports, protocols, and services used by the release.
- Document the test results.
- Send the test results to EDS IA.
- Review for compliance with B1 and B2 firewall policies.

Site Visit Request

Developers or designated representatives who wish to participate in the Lab and Developer Usability Test at the EDS Applications Lab must complete a Site Visit Request. Appendix I.5 describes the Site Visit Request requirements.

6.7.4   Gold Disk Testing

All releases undergo Gold Disk Testing to preclude interoperability or compliance problems with the Gold Disk application loadset. If the release fails the Gold Disk Testing, it is sent to Quick Fix for problem resolution. When corrective action has been completed, the release is returned to Gold Disk Testing to validate the solution.

6.7.5   Quick Fix

If a release fails the Lab and Developer Usability Test or Gold Disk Testing, it is sent to Quick Fix for resolution. The goal of the Quick Fix is to identify, analyze, and apply a rapid, easily applied solution for the release to meet final packaging and certification requirements. The Applications Lab and developer work together to identify a solution. After the solution is identified and applied, the release is returned to the Lab and Developer Usability Test or Gold Disk Testing process. Once the Quick Fix solution is validated, the developer updates the Release Deployment Solution Instructions. EDS then updates the release deployment documentation with the revised instructions.

If a problem cannot be readily resolved at the Applications Lab, the release is returned to the developer for further action. If the developer still intends to deploy the release, the developer must correct the problem before resubmitting the release.

6.7.6   Final Certification Lab Process

Once the release has successfully completed testing, the EDS Proving Center Lab (PCL) conducts a final review of the release and issues a certification letter. This letter is available for viewing in the ISF Tools Database. The Applications Lab forwards Novadigm Radia instances and local load software, including .msi instances, to the Definitive Software Library (DSL), pending release to the NOC. The PCL updates the release deployment documentation with the finalized release deployment instructions.
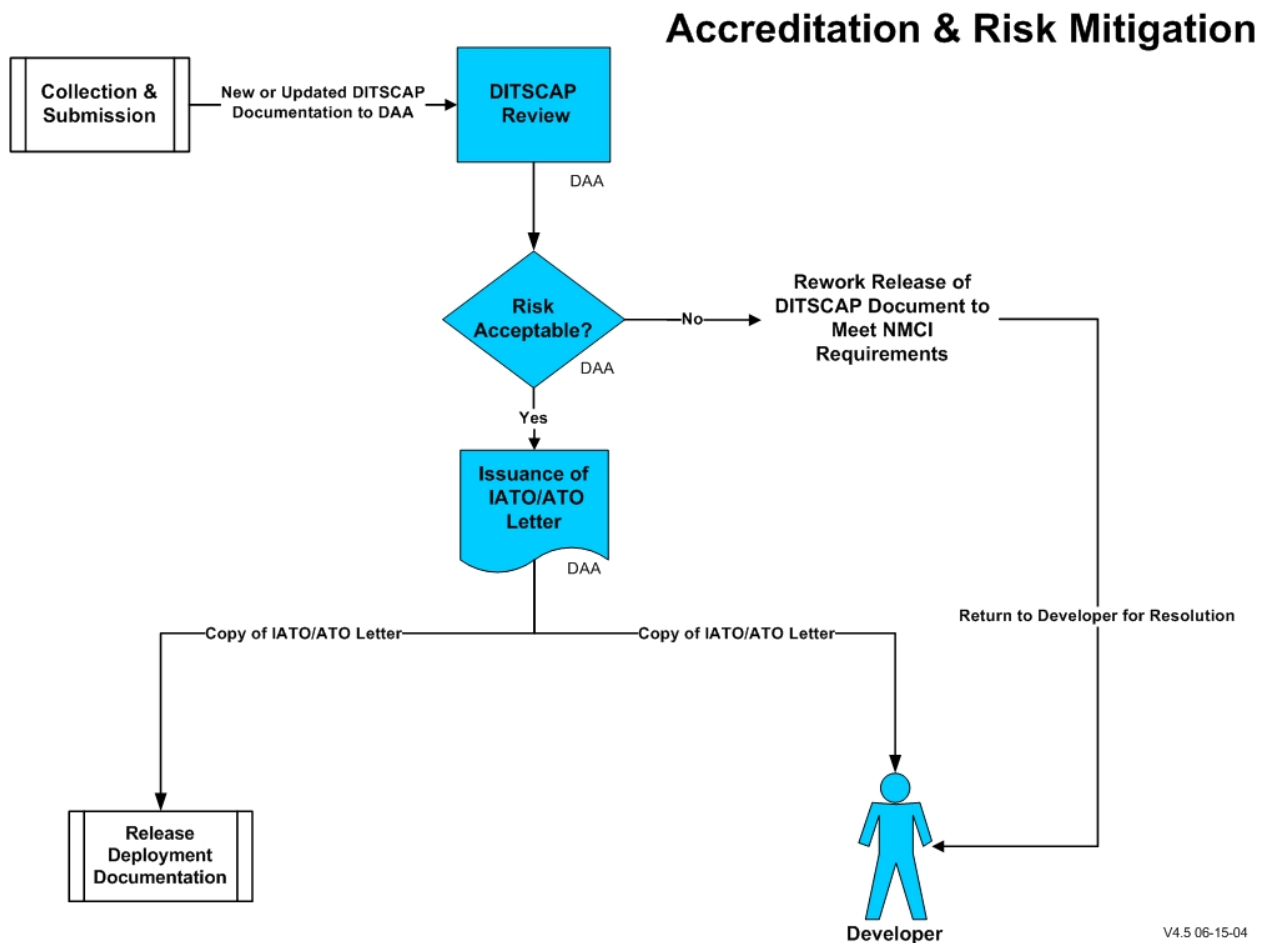
6.8 ACCREDITATION AND RISK MITIGATION

Figure 6-12 depicts the Accreditation and Risk Mitigation process. All releases follow this process in accordance with the provisions contained in Paragraph 4.7.

During this process, the service NMCI DAA completes the following tasks:

- Review DITSCAP documentation.
- Grant certification.

Figure 6-11 Accreditation and Risk Mitigation

During the Collection and Submission process, the developer submitted all required DITSCAP documentation to the service NMCI DAA for review and approval. The service NMCI DAA reviews the DITSCAP documentation and assesses the IA impact (risks to the network and desktop) of the release.

If the service NMCI DAA deems the risk acceptable, an IATO/ATO is granted to operate within the NMCI environment. If the service NMCI DAA determines that the risk is unacceptable, the DITSCAP documentation is returned to the developer for rework and resubmission.

The service NMCI DAA ensures that a copy of the IATO/ATO letter is provided for inclusion in the release deployment documentation.

6.9   RELEASE DEPLOYMENT DOCUMENTATION

Figure 6-12 depicts the release deployment documentation to support the continual collection of information and documentation pertaining to the release as it undergoes the NRDP.
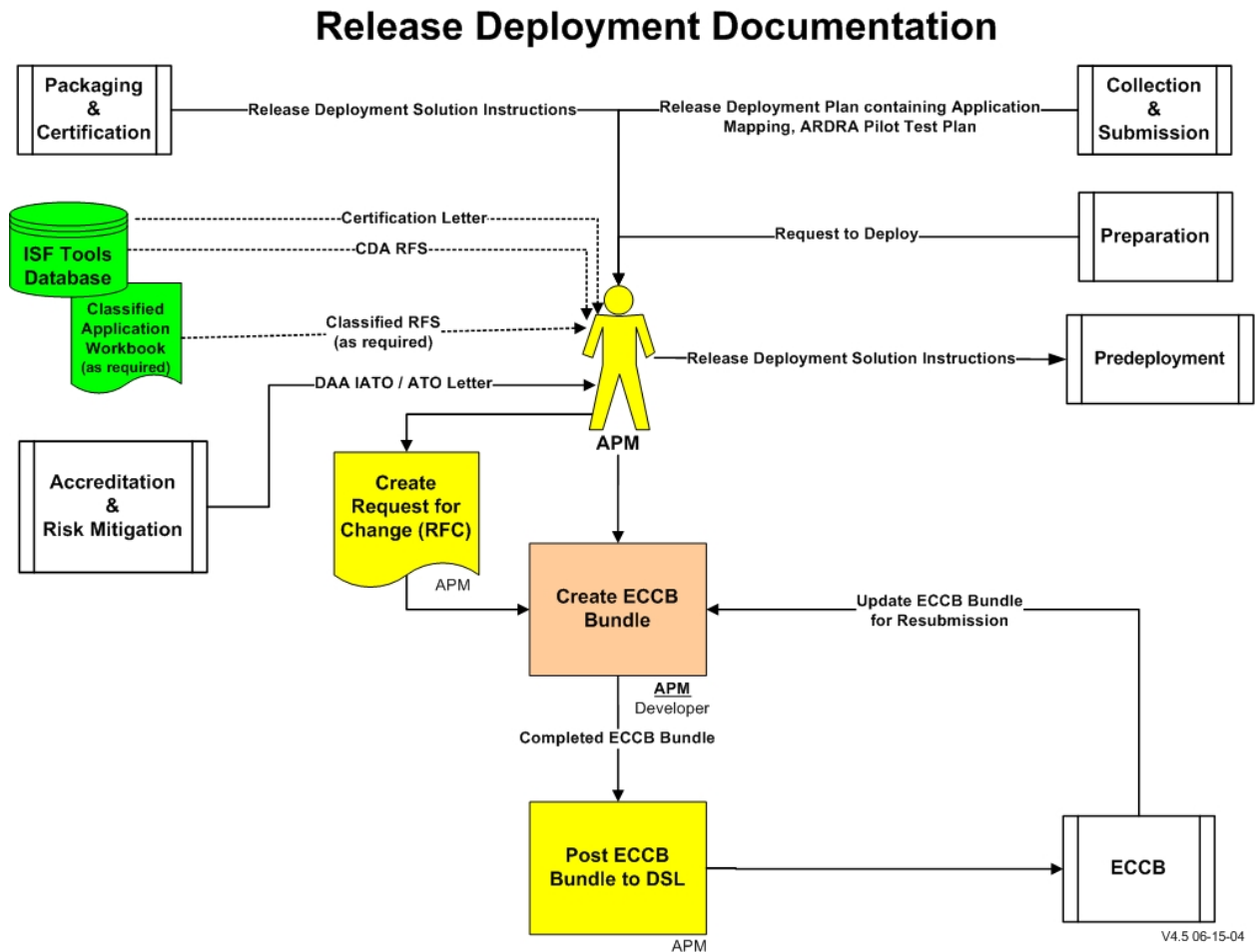
Figure 6-12 Release Deployment Documentation

This process includes the following tasks:

- Update existing documentation.
- Create an ECCB bundle.
- Post the ECCB bundle to the DSL.

The APM maintains all release deployment documentation until the release has been fully deployed in NMCI, at which time it is stored in the DSL. As can be seen, a variety of information is gathered from many sources throughout the NRDP in order to prepare the many documents necessary to

support the deployment of a release. A critical step in this process is development of the ECCB
bundle by the APM. The ECCB bundle consists of the following documents:

- Request for Change (RFC).
- Release Deployment Solution Instructions
- Release Deployment Plan (RDP)
- DAA IATO/ATO Letter
- ARDRA/Pilot Test Plan

6.10 ECCB

Figure 6-13 depicts the ECCB process for review and approval of a release to deploy within NMCI.
The ECCB is composed of representatives from the Navy, Marine Corps, Navy NMCI PMO, and
EDS. IA and operations representatives from the Navy and Marine Corps work with EDS and Navy
NMCI PMO to assess the business and technical properties of the release.
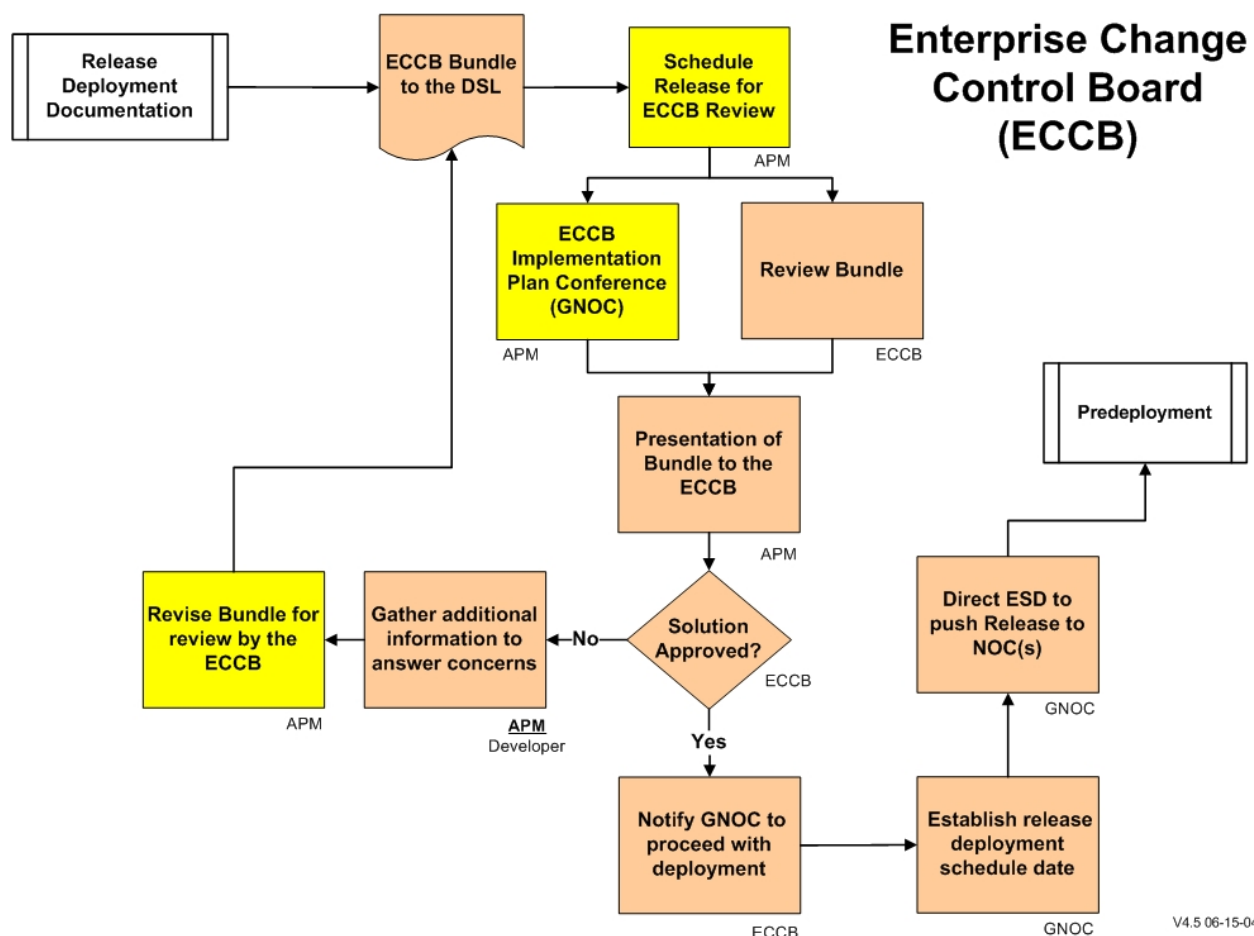
Figure 6-13 Enterprise Change Control Board (ECCB)

The ECCB also determines whether the application poses a risk to the NMCI operational
environment once it is deployed to the desktop. The ECCB reviews the bundle and approves releases
that meet all NMCI requirements.

The release is scheduled for presentation to the ECCB in accordance with its weekly scheduling process.

If the release is approved, the ECCB notifies the Global Network Operations Center (GNOC) to proceed with the deployment. The GNOC establishes a deployment schedule date and directs the ESD to push the release to the NOCs.

If the release is disapproved, the ECCB bundle is returned to the APM for corrective action. The APM passes this requirement to the CCS if developer support is needed. Once corrective action has been completed, the APM revises the ECCB bundle and schedules an ECCB review.

6.11   PREDEPLOYMENT

Figure 6-14 depicts the parts of the Predeployment process that are primarily an EDS responsibility. This process completes final preparations for deployment in accordance with the Application Mapping Plan.
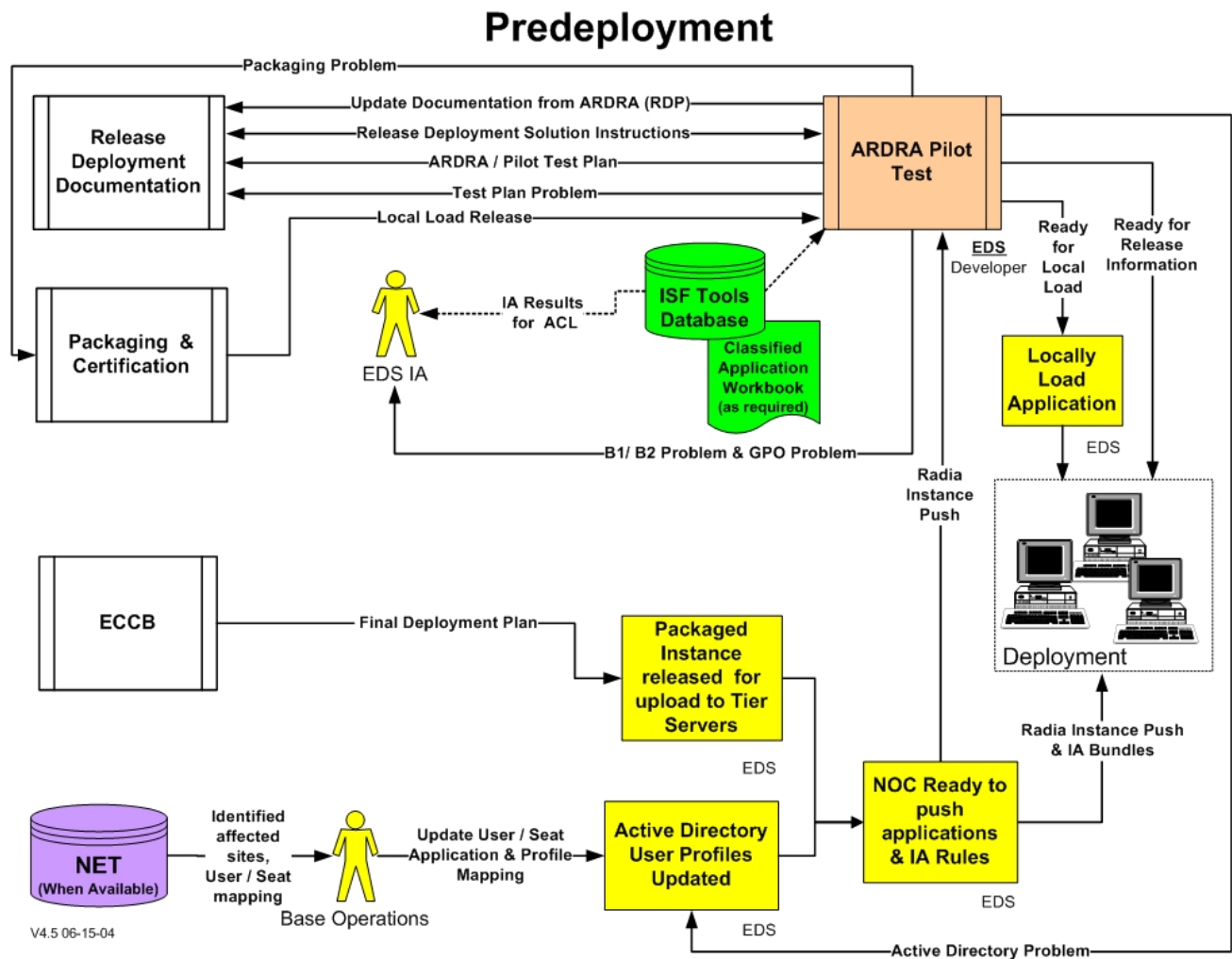
**Figure 6-14 Predeployment Process**

Before ARDRA/Pilot Test can begin, EDS must ensure completion of the following milestones:

- Enterprise B1 is in place at the NOC.
- Enterprise B2 and GPO are deployed.
- Final Deployment Plan is completed.
- Release Deployment Solution Instructions are ready.
- Local deployment releases are ready.
- NOC is ready to push releases to NMCI seats. This includes two tasks:
  - GNOC loads Radia instances from the DSL to the San Diego NOC and uploads to the designated NOC.
  - Base Operations updates the user profiles in the AD using the sites, servers and user-mapping information received from the developer to conduct the ARDRA/Pilot Test.

For classified applications, the Classified Application Workbook stores classified or sensitive information that cannot be stored in the ISF Tools Database.

6.12 APPLICATION RELEASE DEPLOYMENT READINESS ACTIVITY (ARDRA)

Figure 6-15 depicts ARDRA, which is the final evaluation of the release prior to deployment. ARDRA verifies the final release configuration, NOC connectivity, and boundary policies prior to deployment.

Application Release Deployment Readiness Activity (ARDRA)
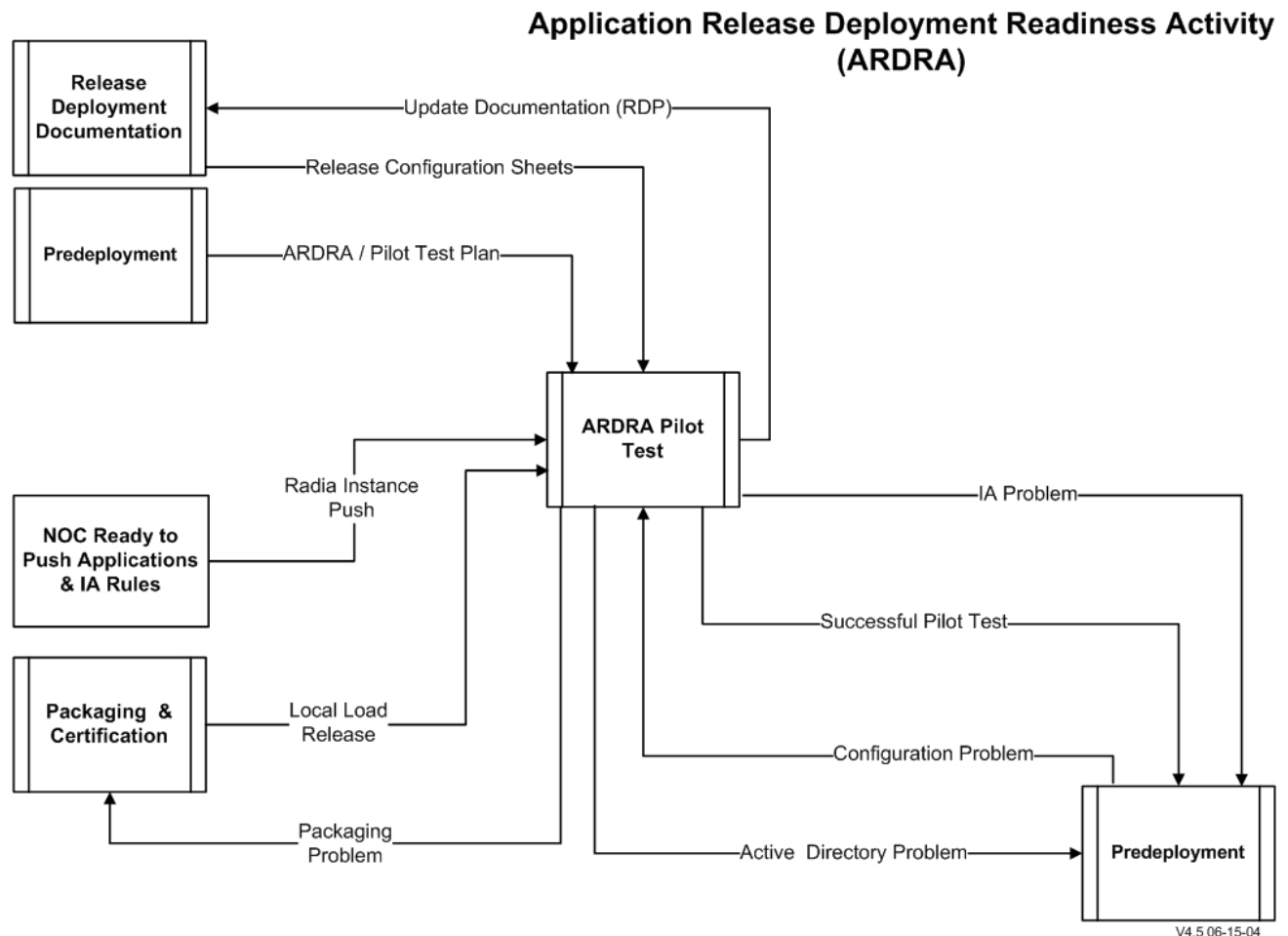
Figure 6-15 Application Release Deployment Readiness Activity (ARDRA)

The ARDRA/Pilot Test verifies and validates the deployability and functionality of the release in a live NMCI environment prior to full deployment of the release. ARDRA has the following objectives:

- Evaluate the performance and IA policies of certified DSL releases. This can include unclassified/classified COTS and GOTS in a true NMCI production environment.

- Provide on-the-job-training for select NMCI seat deployment and EDS base operations personnel on the manual configuration of a release.

- Ensure proper network configuration and operations.

- Evaluate migration tools.

- Evaluate Radia applications management.

- Validate migration implementation plan and test print functions.

EDS, with input from the developer, decides whether to conduct an ARDRA/Pilot Test for the release. Generally, the ARDRA/Pilot Test is only used to test and evaluate complex applications. The ARDRA/Pilot Test can also be conducted on simple applications if EDS and the developer determine this requirement is necessary to ensure successful deployment. EDS Base Operations conducts the ARDRA/Pilot Test in the live NMCI environment. The ARDRA/Pilot Test can be used on classified and unclassified networks and on COTS and GOTS software.

6.12.1 ARDRA/Pilot Test Plan

The key to the success of the ARDRA/Pilot Test is a well designed plan. This requires commitment from appropriate Commands, planning for availability of personnel and equipment, but most importantly, communications between all parties, including EDS, developer, affected customers, and Commands. The developer must develop an ARDRA/Pilot Test Plan well in advance of the start of the test. Refer to the ARDRA/Pilot Test checklist in Appendix I.6.

The developer should understand the purpose and methodology of the plan and be conversant on its objectives. The developer should be in very close communications with the EDS Application Program Manager in order to mitigate any unforeseen issues.

The ARDRA/Pilot Test Plan must include the following items:

- Scope, strategy, and timeline
- Commands and environment requirements
- Tools and test equipment required
- Roles and responsibilities
- Recovery and error-handling tests
- Testing criteria
  - Test descriptions
  - Pilot install and criteria to begin testing
  - Configuration tests
  - Functional tests
  - Load and performance tests
  - Stress tests
- Problem recording, issues management and escalation, rework, and resolution
- Exit criteria

6.13 ARDRA/PILOT TEST

Figure 6-16 depicts a preferred methodology to process the final ARDRA/Pilot Test. After Predeployment activities are completed, the developer and EDS must complete the ARDRA/Pilot Test in order to release the application.
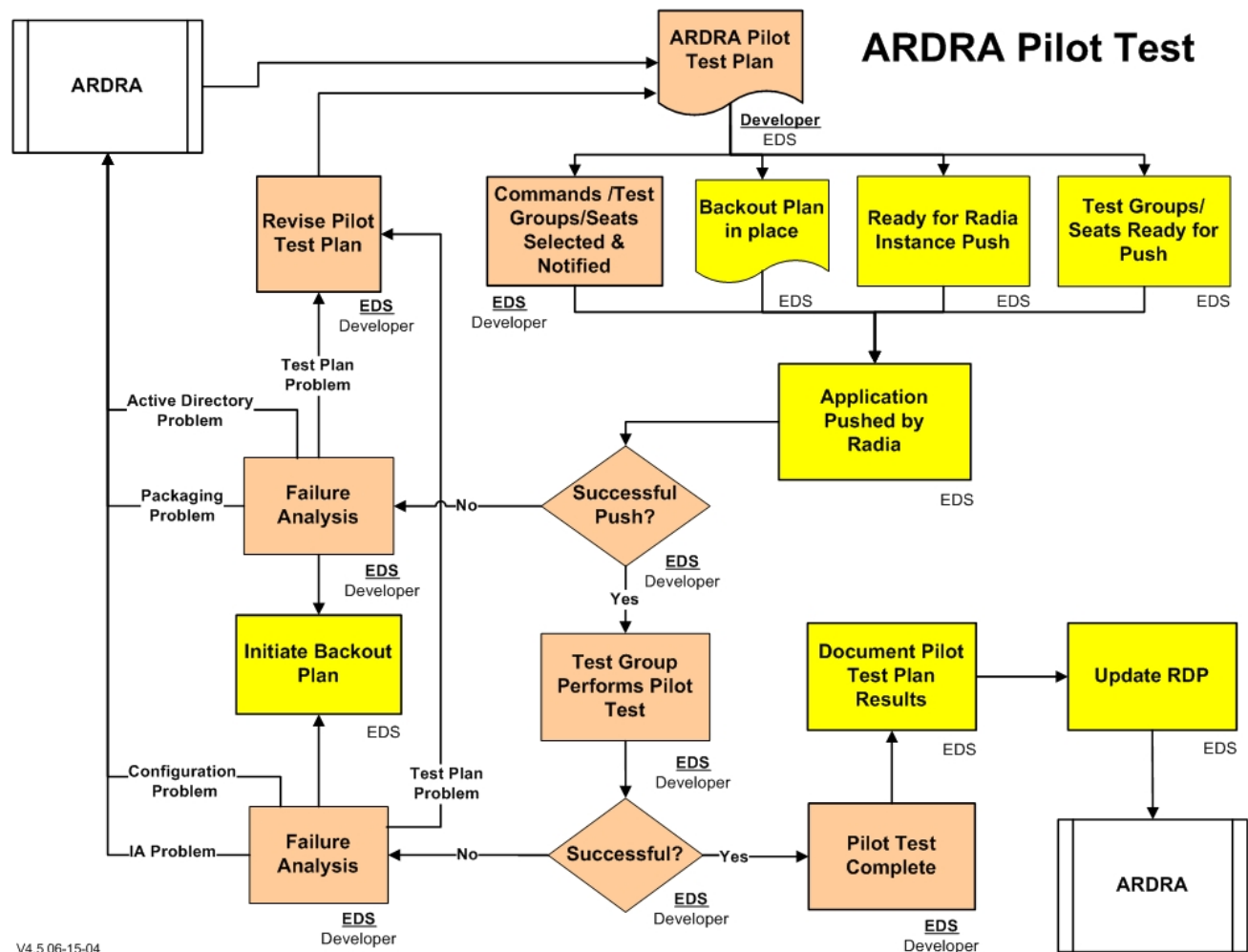
Figure 6-16 ARDRA/Pilot Test Plan

Well in advance of the ARDRA/Pilot Test, the developer must provide local Command, EDS, and affected Commands or agencies with a copy of the ARDRA/Pilot Test Plan. The following tasks must be completed prior to the ARDRA/Pilot Test:

- Developer coordinates with the Commands, test groups, selected seats, and EDS.
- Developer provides any tools or test equipment described in the test scope.
- Developer distributes documentation to all parties that includes the agreed-upon roles and responsibilities.
- EDS publishes a Backout Plan for use in the event of deployment failure.
- EDS prepares the release for deployment.
- Developer notifies test seats of an impending Radia instance push.

The success of the Radia instance push is confirmed. If the release fails to deploy as described in the ARDRA/Pilot Test Plan, EDS and the developer jointly conduct a failure analysis. If the failure can be corrected and the release deployment problem remedied, the ARDRA/Pilot Test Plan is updated

and the test continues. If the failure cannot be corrected, EDS initiates the Backout Plan, documenting in detail the errors that caused the deployment to fail.

If the Radia instance push was successful, the developer and test group continue to evaluate the release, as detailed in the ARDRA/Pilot Test Plan. EDS and the developer, again jointly, verify success or failure of the test. If a failure has been discovered, a failure analysis determines the level of the failure. If the failure can be corrected within the constraints of the test, the corrections are implemented and the test continues to completion. If the failure cannot be corrected within the constraints of the test, the Backout Plan must be initiated, errors documented, and the release returned to the developer for reengineering. If the test is successful, the process continues until ARDRA/Pilot Test completion. The results of the ARDRA/Pilot Test are documented and forwarded to the APM for inclusion with all other documentation pertaining to the release.

6.14 DEPLOYMENT

Once the ARDRA/Pilot Test has been implemented and documented, the application is pushed to the NOC in accordance with the RDP. The NMCI Electronic Software Delivery model assumes that users leave their computers turned *ON* during the night so as to be available for frequent, and often large, software updates that are performed outside normal working hours. When large groups of users turn their computers off, these updates cannot occur when scheduled, and by design, are postponed until a user logs in the next morning. This practice causes potentially significant delays at entire sites during the first few hours of the work day as large numbers of users log into the network at approximately the same time.

The potential also exists to impact NMCI at the regional level, since the distribution mechanisms are centrally located at individual NOCs. Additionally, workstations that have been powered off do not receive required IAVA updates (i.e., patches) or time-sensitive antivirus updates; this poses an even greater risk to overall network performance and security.

If you know in advance that you are on distribution for an application and it does not deploy to you, contact the NMCI Help Desk. For more information on the electronic software delivery method, contact the NMCI Help Desk.

Required Actions Unclassified Seats:

- Do *NOT* turn off your computer at night. Leave your computer powered on when you leave at the end of the work day.

- Restart your NMCI seat every night before you leave, but do not shut down the NMCI seat completely, and *never leave your NMCI seat logged in overnight*.

- Monitors and peripheral devices (e.g., scanners, printers, speakers, etc.) may be turned off to conserve power.

- Laptop users who use docking stations are encouraged to leave the laptop locked in the docking station as often as possible. Leaving the laptop turned *ON* in the docking station at night increases its chances of receiving updates successfully and reduces user impact during work hours.

Required Actions Classified Seats:

- Where authorized and in conjunction with current DON physical security requirements, classified workstations are to remain powered on after normal working hours using the restart option listed above.

- Commands required to secure hard drives at the end of the day are advised software pushes will not occur on those particular machines until next log in.

  IMPORTANT: In some cases, users have not logged on to their classified machines in over 30 days. The end result is an unavailable seat overcome by multiple software pushes. For this reason, all classified NMCI users are required to log in to the network at least once every 14 days. Doing so ensures adequate software delivery and overall workstation performance.